Name:

at1110paper_practice_test (v105)

1. Expand the following expression into standard form.

$$(2x+3)(2x-3)$$

$4x^2 - 6x + 6x - 9$

$4x^2 - 9$

2. Expand the following expression into standard form.

$$(2x-3)^2$$

$4x^2 - 6x - 6x + 9$

$4x^2 - 12x + 9$

3. Solve the equation.

$$(7x-8)(9x+5) \;=\; 0$$

$x = \frac{8}{7}$ $\qquad$ $x = \frac{-5}{9}$

4. Factor the expression.

$$x^2 - x - 56$$

$(x-8)(x+7)$

5. Factor the expression.

$$81x^2 - 64$$

$$(9x + 8)(9x - 8)$$

6. Solve the equation.

$$8x^2 - 19x - 26 \;=\; 3x^2 - 5x - 2$$

$$5x^2 - 14x - 24 = 0$$
$$(5x + 6)(x - 4) = 0$$
$$x = \frac{-6}{5} \qquad x = 4$$

7. Expand the following expression into standard form.

$$(2x + 3)(8x + 9)$$

$$16x^2 + 18x + 24x + 27$$
$$16x^2 + 42x + 27$$

8. Solve the equation with factoring by grouping.

$$8x^2 + 10x + 12x + 15 \;=\; 0$$

$$(2x + 3)(4x + 5) = 0$$
$$x = \frac{-3}{2} \qquad x = \frac{-5}{4}$$